

Claims

[c1] 1. A flexible imaging member seam treatment article preparation method comprising:
providing a flexible substrate comprising a high-temperature-resistant material;
coating a surface of the flexible substrate with a solution including at least one thermoplastic polymer component; and
drying the coated surface to form a film of the at least one polymer component on the coated surface.

[c2] 2. The method of claim 1 further comprising cutting the coated flexible substrate into at least one strip sized to cover the seam.

[c3] 3. The method of claim 1 wherein providing a flexible substrate comprises providing a web of a high-temperature-resistant material and the method further comprises forming a roll from the dried, coated flexible substrate.

[c4] 4. The method of claim 1 wherein providing a flexible substrate comprises providing a metallic substrate.

[c5] 5. The method of claim 1 wherein providing a flexible substrate comprises providing a high-glass-transition-temperature flexible polymeric film.

[c6] 6. The method of claim 5 wherein providing a high-glass-transition-temperature flexible polymeric film comprises providing a biaxially-oriented PET film.

[c7] 7. The method of claim 1 wherein coating a surface of the flexible substrate comprises providing a solution including a charge transport compound.

[c8] 8. The method of claim 7 wherein providing a solution further comprises dissolving a polycarbonate and the charge transport compound in an organic solvent.

[c9] 9. The method of claim 8 wherein the polycarbonate includes Makrolon.

[c10] 10. A belt seam treatment strip preparation method comprising:

dissolving a thermoplastic polymer into a solvent;
applying the dissolved thermoplastic polymer to a surface of a high-temperature-resistant flexible substrate; and
eliminating the solvent to form a thermoplastic polymer film on the surface of the substrate.

[c11] 11. The method of claim 10 wherein dissolving a thermoplastic polymer into a solvent comprises providing an organic solvent.

[c12] 12. The method of claim 10 wherein dissolving a thermoplastic polymer comprises providing at least one of a granular and a powder of a film-forming thermoplastic polymer.

[c13] 13. The method of claim 10 wherein eliminating the solvent comprises air drying the coated substrate.

[c14] 14. The method of claim 10 wherein eliminating the solvent comprises baking the coated substrate.

[c15] 15. The method of claim 10 wherein applying the dissolved thermoplastic polymer comprises providing a web of high-temperature-resistant flexible substrate.

[c16] 16. The method of claim 10 wherein applying the dissolved thermoplastic polymer comprises providing a high-glass-transition-temperature flexible polymer substrate.

[c17] 17. The method of claim 16 wherein providing a high-glass-transition-temperature flexible polymer substrate includes providing a biaxially-oriented PET film.

[c18] 18. The method of claim 10 wherein applying the dissolved thermoplastic polymer comprises providing a metallic film.

[c19] 19. The method of claim 10 wherein dissolving a thermoplastic polymer comprises providing a charge transport compound.

[c20] 20. The method of claim 19 wherein providing a charge transport compound

further comprises providing N,N'-diphenyl-N,N'-bis(3-methylphenyl)-1,1'-biphenyl-4,4'-diamine as a charge transport compound.

[c21] 21. The method of claim 20 wherein the dissolved thermoplastic polymer comprises a bisphenol-A polycarbonate of Makrolon and includes the charge transport compound.

[c22] 22. A flexible imaging belt seam treatment article comprising a high-temperature-resistant flexible substrate supporting a thermoplastic polymer film deposited thereon by dissolution of a film-forming thermoplastic polymer in a carrier solvent, application of a resulting solution to the flexible substrate, and elimination of the carrier solvent.

[c23] 23. The article of claim 22 wherein the high-temperature-resistant flexible substrate comprises a flexible metallic film.

[c24] 24. The article of claim 22 wherein the high-temperature-resistant flexible substrate comprises a high-glass-transition-temperature polymer sheet.

[c25] 25. The article of claim 22 wherein the deposited thermoplastic polymer film comprises a bisphenol-A polycarbonate and a charge transport compound.

[c26] 26. The article of claim 25 wherein the bisphenol-A polycarbonate is Makrolon and the charge transport compound is N,N'-diphenyl-N,N'-bis(3-methylphenyl)-1,1'-biphenyl-4,4'-diamine.